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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/609,182

06/27/2003

Geoffrey T. Dunbar

302134.01

7663

22971 7590 06/01/2009

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EXAMINER

SHIBRU, HELEN

ART UNIT

PAPER NUMBER

2621

NOTIFICATION DATE

DELIVERY MODE

06/01/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/609,182	<b>Applicant(s)</b> DUNBAR ET AL.	
	<b>Examiner</b> HELEN SHIBRU	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5, 24-36 and 38-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 24-36, 38-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. The amendments, filed 02/20/2009, have been entered and made of record. Claims 1-5, 24-36, 38-42 are pending.

***Response to Arguments***

2. Applicant's arguments filed 02/20/2009 have been fully considered but they are not persuasive. See below.

Argument regarding claim 1

Applicant states, "There is no disclosure of querying functional objects to determine functional limits."

In response the Examiner respectfully disagrees. First of all, the USPTO considers Applicant's "one or more" language to be anticipated by any reference containing one of the subsequent corresponding elements. In the instant case, particularly in claim 1, the functional objects and functional limit can be broadly interpreted. It is noted that claim 5 recites the functional objects include media source object, media sink object, and transform object. However the term is not defined in the specification and thus must be given its broadest reasonable interpretation consistent with Applicant's disclosure. Therefore the objects can be one of MP3, CD, DVD, WM, PVR, image capture, WAV, AV1, Codecs, DSP, FX, audio video file, network, etc. Furthermore Faiman at least discloses data sources (audio or video), format object, and media sink object. The processor of Faiman contains configuring and configured states. In configuring state, the processor connects to the desired data source, demultiplexes the incoming

media stream and attempts to analyze the format of the media stream, and then in configured state the format of the media source is determined.

Argument regarding claim 2

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "which functional limits of objects in a media system maximally limit a capability of the media system as encompassed by claim 1") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Claim 1 merely recites 'one or more' but not selecting one.

Argument regarding claim 3

Applicant states the cited prior art fails to teach 'determining a minimum of the maximum reported playback rates.'

In response the Examiner respectfully disagrees. First of all, claim 2 on which claim 3 depend on is silent as to reporting playback rates. Second, Faiman teaches the end of the media stream defines the maximum media time, wherein the media time is bounded. Hence there is minimum and maximum time in the bounded media time. Furthermore the player provides information about its current parameter, including rate, as stated on paragraph 3.5.2.

Regarding claim 4

Applicant states Faiman fails to teach "determining a minimum playback rate and the maximum playback rate in a set of modes including: reverse skip mode, reverse key frame mode, reverse full mode, forward full mode, forward key frame mode, forward skip mode."

In response the Examiner respectfully disagrees. Faiman discloses setting media time, playing in forward and reverse direction. Faiman also teaches the duration interface tells how long a particular media stream will run. The duration represents the length of time a media object would run.

Regarding claim 5

Applicant states the cited prior art fails to teach “one or more functional objects include a media source object, a transform object, and a media sink object.”

In response the Examiner respectfully disagrees. Faiman teaches data sources (pull and push data sources), format object, and media sink object. Wherein the pull and push data sources use a byte array as a basic unit of data transfer. See also the response of claim 1 above.

Regarding claim 24

Applicant stated the cited prior art fails to teach the limitation of claim 24.

In response the Examiner respectfully disagrees. The control layer component include MP3, CD, DVD, WM, PVR, IMAGE CAPTURE, WAV, AV1, audio, video file, network, codecs, DSP, FX, etc. The prior art discloses in para. 3.2 different interference components. These components are placed in specific classes in order to incorporate multiple functionalities. The control panel components as stated in paragraph 3.2 provides the functionality to control the media presentation. Furthermore figure 5.1 shows subset of layers where the real time multimedia content and control message is placed. The control message allows an application to monitor the quality of its data distribution. The prior art also discloses OSI model of a network architecture is layered.

Regarding claim 25 argument, see the response of claims 5 and 24 above.

Regarding claim 27 argument, see the response of claims 3 and 24 above.

Regarding claim 29

Applicant states the cited prior art fails to teach, “the core layer further includes a media source, the media source configured to provide a presentation timestamp for media samples on the media stream, the samples configured to preserve the presentation timestamp independent of a rate for media playback.”

In response the Examiner respectfully disagrees. Faïman teaches streaming media can be presented through a manager using media locator that has the parameter of an RTP session. Faïman further teaches player objects constructed with media locator automatically process payload changes. See also the response of claim 24 above.

In response Applicant argument regarding claim 30, Faïman teaches the processor connects to the desired data source, demultiplexes the incoming media stream and attempts to analyze the format of the media stream, then in configured state the format of the media source is determined. Faïman also discloses setting media time, playing in forward and reverse direction where the duration interface tells how long a particular media stream will run.

Regarding claim 31

Applicant states, “Faïman fails to disclose or suggest the media engine is configured to respond to requests for rate direction changes by playing out any remaining content up to a timestamp of a direction change, discarding any data in a pipeline, setting a rate of playback and restarting playback in an opposite direction in accordance with the direction change.”

In response the Examiner respectfully disagrees. Faïman teaches JRTP contains a session manager interface, which defines the functionality that a session manager should implement. An

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implementation of this interface is the starting point for creating, maintaining and closing an RTP session. Furthermore player objects constructed with a MediaLocator automatically process payload changes. Key frame control, allows the user to specific interval between media frames. The playback rate determines media time change with respect to time-base time.

Regarding claim 32, see the response for claim 31, and claims 1 and 2 above.

Regarding claim 35 arguments, Faiman teaches several user interface components that provides a functionality to control the media presentation, and set of buttons to start, stop and pause the media stream has been taught in the cited prior art.

Regarding claim 34

Applicant states, “Faiman fails to discloses or suggest wherein one or more components in the core layer are configured to maintain a list of pending rate changes, each component having active only one rate at a time, each component configured to maintain a playback rate independent of tracking rate changes.”

In response the Examiner respectfully disagrees. As stated above, applicant’s ‘one or more’ language can be interpreted as one component wherein the component having active only rate at a time and configured to maintain a playback rate independent of tracking rate changes. The processor of Faiman is used as a programmable player that enables a programmer to control the decoding and rendering process wherein the track control process is performed by the processor.

The claimed invention does in fact read on the cited references for at least the reasons discussed above and as stated in the detail Office Action as follows.

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-5, 24-36 and 38-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Faiman (A Survey of the Java Media Framework 2.0).

Regarding claim 1, Faiman discloses a method for determining the capabilities of a media system, the method comprising: querying each of one or more functional objects in the media system to determine a functional limit of each of the one or more objects for a predetermined function (see paragraphs 2.1.2, 2.3.2, 3.3, and 3.5.2); and determining which of the functional limits of the one or more objects maximally limits the capability of the media system for the predetermined function (see paragraph 3.6).

Regarding claim 2, Faiman discloses the predetermined function is a maximum playback rate of a multimedia stream (see paragraphs 3.3).

Regarding claim 3, Faiman discloses determining a minimum of the maximum reported playback rates (see paragraphs 3.3 and 3.5.2).

Regarding claim 4, Faiman discloses determining a minimum playback rate and the maximum playback rate in a set of modes including: reverse skip mode, reverse key frame mode, reverse full mode, forward full mode, forward key frame mode, forward skip mode (see paragraph 3.3).

Regarding claim 5, Faiman discloses the one or more functional objects include a media source object, a transform object, and a media sink object (see paragraph 2.3.2).

Regarding claim 24, Faiman discloses a multimedia system comprising: a control layer configured to receive one or more media data streams from an application (see fig. 5.1 and



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paragraph 3.2); and a core layer coupled to the control layer, the control layer including a media engine component configured to query each of one or more core layer components in the multimedia system to determine a functional rate limit of each core layer component for a predetermined function, the media engine configured to determine which of the functional limits of the core layer components maximally limits the multimedia system (see paragraphs 2.1.2, 2.3.2, 3.3, 3.5.2, 3.6, 4.1, and 4.2).

Regarding claim 25, Faïman discloses one or more media sources coupled to the control layer, the media sources configured as inputs to the multimedia system; one or more stream sources coupled to the control layer, the stream sources providing the media data streams; one or more transforms coupled to the control layer, the transforms configured to operate on the media data streams; one or more media sinks coupled to the control layer, the media sinks configured to operate as outputs for the media data streams; and one or more stream sinks coupled to the control layer, the stream sinks configured to store or render the media data streams (see paragraphs 2.3.2, 2.1.2, 4.1-4.3, 4.6 and figure 5.2).

Regarding claim 26, Faïman discloses the control layer includes: the media engine; a topology loader configured to identify data flow; a media session configured to interface with core layer components; and a media processor configured to perform transforms on the media data streams (see paragraphs 2.2.2 and 4.1).

Regarding claim 27, Faïman discloses the media engine interacts with a plurality of components in the core layer and the control layer to provide rate changes and rates, the media engine configured to use floating point values to linearly indicate a speed of playback (see paragraphs 3.3 and 3.5.2).

Regarding claim 28, Faïman discloses a negative rate specifies a backward playback (see paragraph 3.3).

Regarding claim 29, Faïman discloses the core layer further includes a media source, the media source configured to provide a presentation timestamp for media samples on the media stream, the samples configured to preserve the presentation timestamp independent of a rate for media playback (see paragraphs 3.7-3.8).

Regarding claim 30, Faïman discloses the multimedia system further includes a presentation clock configured to run time according to a current rate, and the core layer further includes one or more media sinks coupled to the presentation clock, the media sinks configured to display data according to the presentation clock and independent of non-presentation clock component timestamps (see paragraphs 3.3, 3.4 and 4.0).

Regarding claim 31, Faïman discloses the media engine is configured to respond to requests for rate direction changes by playing out any remaining content up to a timestamp of a direction change, discarding any data in a pipeline, setting a rate of playback and restarting playback in the opposite direction in accordance with the direction change (see paragraphs 3.2-3.5.2 and 5.1.2).

Regarding claim 32, Faïman discloses data repeated after the restarting playback is discarded (see paragraph 3.5).

Regarding claim 33, Faïman the media engine is configured to be independent of tracking multiple playback rates unless the rates are within a same mode (see paragraphs 2.1.5 and 2.3.3).

Regarding claim 34, Faïman discloses one or more components in the core layer are configured to maintain a list of pending rate changes, each component having active only one

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rate at a time, each component configured to maintain a playback rate independent of tracking rate changes (see paragraphs 3.0-3.1).

Regarding claim 35, Faïman discloses the media engine is configured to support backward decoding for coder-decoders that do not support backward decoding; the media engine configured to perform forward decoding, and reverse any decoded samples (see paragraphs 3.2-3.4).

Regarding claim 36, Faïman discloses the reversed decoded samples are available for reuse (see paragraph 5.0).

Regarding claims 38-42, claims 38-42 are rejected for the same reasons as discussed in claims 1-5 above.

### ***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HELEN SHIBRU whose telephone number is (571)272-7329. The examiner can normally be reached on M-F, 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on (571) 272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HELEN SHIBRU/  
Examiner, Art Unit 2621  
May 25, 2009

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621